

02-22-03

PATENT
454313-3154.1

1635

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants(s) : AUDONNET et al.

U.S. Serial No.: 09/760,574

Filing Date : January 16, 2001

For: : IMPROVED DNA VACCINES FOR FARM ANIMALS, IN
PARTICULAR BOVINES AND PORCINES

Examiner : J. Eric Angell

Art Unit : 1635

RECEIVED

MAY 28 2003
TECH CENTER 1600/2900

#15/K.T.
5/27
I.D.S

745 Fifth Avenue,
New York, NY 10151

EXPRESS MAIL

Mailing Label Number: EV196818692US

Date of Deposit: May 21, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Edward Nay
(Typed or printed name of person mailing paper or fee)

[Signature]
(Signature of person mailing paper or fee)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Examiner's attention is respectfully directed to the documents which are set forth on the accompanying form PTO-1449. This Information Disclosure Statement is being filed after receipt of a non-final Office Action mailed September 12, 2002, and we have enclosed the

required fee of \$180.00 set forth in §1.17(p) for consideration and entry of this document.

05/23/2003 HASFAH1 00000125 09760574

01 FC:1806

180.00 DP

However, the Commissioner is hereby authorized to charge any such fee, or credit any overpayment to Deposit Account 50-0230.

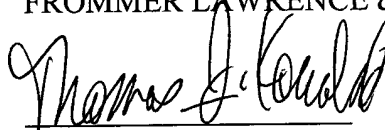
The filing of this Information Disclosure Statement is not an admission that the documents identified herein constitute prior art to the present application.

Applicants respectfully request that the Examiner considers and make of record the documents cited herewith and that a copy of Form PTO-1449 be initialed by the Examiner and returned to the undersigned.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

By:



Thomas J. Kowalski

Reg. No. 32,147

Tel 212-588-0800

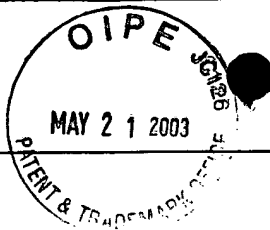
Fax 212-588-0500



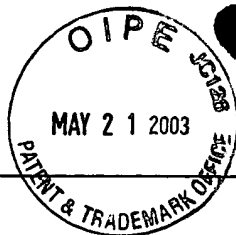
#15/I.D.S.

Sheet 1 of 4

Based on Form PTO-1449 (3/90) LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)				ATTY. DOCKET NO. 454313-3154.1		SERIAL NO. 09/160,574		
				APPLICANT AUDONNET ET AL				
				FILING DATE January 16, 2001		GROUP 1635		
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AA	US 5 545 412	08/13/96	Eppstein et al.				
	AB	US 4 946 787	08/07/90	Eppstein et al.				
	AC	US 6 287 856	09/11/01	Poet et al.				
	AD	US 5 910 488	06/08/99	Nabel et al.				
	AE	US 5 620 896	04/15/97	Herrmann et al.				
	AF	US 5 643 578	07/01/97	Robinson et al.				
	AG	US 6 451 770	09/17/02	Rijsewijk et al.				
	AH	US 5 705 385	01/06/98	Bally et al.				
	AI	US 6 019 980	02/01/00	Li et al.				
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AJ	WO 94 21797	09/29/94	WIPO				
	AK	WO 93 19183	09/30/93	WIPO				
	AL	WO 90 11092	10/04/90	WIPO				
	AM	WO 97 23502	07/03/97	WIPO				
	AN	WO 96 06619	03/07/96	WIPO				
	AO	WO 92 05255	04/02/92	WIPO				
	AP	WO 00 24428	05/04/00	WIPO				
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AQ		Roberto Bei et al., Journal of Immunotherapy, 1998 "The Use of a Cationic Liposome Formulation (DOTAP) Mixed with a Recombinant Tumor-Associated Antigen to Induce Immune Responses and Protective Immunity in Mice"					
	AR		R. Braun et al., Journal of General Virology 1998, "Compatibility of plasmids expressing different antigens in a single DNA vaccine formulation"					
EXAMINER				DATE CONSIDERED				
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



Based on Form PTO-1449 (3/90) LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)				ATTY. DOCKET NO. 454313-3154.1		SERIAL NO. RECEIVED 09/760,574 MAY 23 2003 TECH CENTER 1600/2900	
				APPLICANT AUDONNET ET AL			
				FILING DATE January 16, 2001		GROUP 1635	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AC						
	AD						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AE		Yoshifumi Watanabe et al., J. Bircher 1994 "Highly Efficient Transfection into Primary Cultured Mouse Hepatocytes by Use of Cation-Liposomes: An Application for Immunization"				
	AF		Nash Blood 1991 (abstract)				
	AG		NP Restifo et al., Gene Therapy 2000, "The Promise of Nucleic Acid Vaccines"				
	AH		Eiichi Okada et al., Journal of Immunology 1997, "Intranasal Immunization of a DNA Vaccine IL-12- and Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF)-Expressing Plasmids in Liposomes Induces Strong Mucosal and Cell-Mediated Immune Responses Against HIV-1 Antigens"				
	AI		Masayuki Yokoyama et al., FEM Immunology and Medical Microbiology 1996, "DNA Immunization: Effects of Vehicle and Route of Administration on the Induction of Protective Antiviral Immunity"				
	AJ		Linda S. Klavinskis et al., J. Immunol 1999, "Intranasal Immunization with Plasmid DNA-Lipid Complexes Elicits Mucosal Immunity in the Female Genital and Rectal Tracts"				
	AK		Jae Ho Cho et al., Vaccine 1999, "Enhanced Cellular Immunity to Hepatitis C Virus Nonstructural Proteins by Codelivery of Granulocyte Macrophage-Colony Stimulating Factor Gene in Intramuscular DNA Immunization"				
	AL		Michael D. Macklin et al., Journal of Virology, February, 1998, page 1491-1496, "Immunization of Pigs with a Particle-Mediated DNA Vaccine to Influenza a Virus Protects against Challenge with Homologous Virus"				
	AM		Van Rooij et al., Veterinary Immunology and Immunopathology, 2000, "A DNA Vaccine Coding for Glycoprotein B of Pseudorabies Virus Induces Cell-Mediated Immunity in Pigs and Reduces Virus Excretions Early After Infection"				
	AN		Bart L. Haagmans et al., Vaccine, 1999, "Vaccination of Pigs Against Pseudorabies Virus with Plasmid DNA Encoding Glycoprotein D"				
EXAMINER				DATE CONSIDERED			
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



RECEIVED
MAY 23 2003
TECH CENTER 1600/2900

Based on Form PTO-1449 (3/90)				ATTY. DOCKET NO. 454313-3154.1		SERIAL NO. 09/760,574	
LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT AUDONNET ET AL			
				FILING DATE January 16, 2001		GROUP 1635	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AB						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AC			Boroushan Pirzadeh et al., Journal of General Virology, 1998, "Immune Response in Pigs Vaccinated with Plasmid DNA Encoding ORF5 of Porcine Reproductive and Respiratory Syndrome Virus"			
	AD			C. Somasundaram et al., Veterinary Immunology and Immunopathology, 1999, "Enhanced Protective Response and Immuno-Adjuvant Effects of Porcine GM-CSF on DNA Vaccination of Pigs against Aujeszky's Disease Virus"			
	AE			Jeong-Im Sin et al., Vaccine, Vol. 15, 1997, "Protective Immunity Against Heterologous Challenge with Encephalomyocarditis Virus by VP1 DNA Vaccination: Effect of Coinjection with a Granulocyte-Macrophage Colony Stimulating Factor Gene"			
	AF			S. Inumaru et al., Immunology and Cell Biology, 1995, XP-000946635, "cDNA Cloning of Porcine Granulocyte-Macrophage Colony-Stimulating Factor"			
	AG			Colin J. McInnes et al., Gene, 1991, XP-002148815, "Cloning and Expression of a cDNA Encoding Ovine Granulocyte-Macrophage Colony-Stimulating Factor"			
	AH			Lorne A. Babiuk et al., Veterinary Immunology and Immunopathology, 2000, "Nucleic Acid Vaccines: Research Tool or Commercial Reality"			
	AI			Jan Schultz et al., Intervirology 2000, "Update on Antiviral DNA Vaccine Research" (1998-2000)			
	AJ			Parker et al., XP-002153286, "Cancer Gene Therapy" 1996			
	AK			Michael J. McCluskie et al., Molecular Medicine, 1999, "Route and Method of Delivery of DNA Vaccine Influence Immune Responses in Mice and Non-Human Primates"			
	AL			L.A. Babiuk et al., "DNA Immunization with Bovine Herpesvirus-1 Genes" 1995			
	AM			Weiwen Jiang et al., Vaccine, Vol. 16, 1998, "Nucleic Acid Immunization Protects Dogs against Challenge with Virulent Canine Parvovirus"			
EXAMINER				DATE CONSIDERED			
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Based on Form PTO-1449
(3/90)

ATTY. DOCKET NO.

454313-3154.1

SERIAL NO.

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

AUDONNET ET AL

FILING DATE

January 16, 2001

GROUP

1635

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AD	Masashi Sakaguchi et al., Vaccine, Vol. 14, 1996, "Protection of Chickens from Newcastle Disease by Vaccination with a Linear Plasmid DNA Expressing the F Protein of Newcastle Disease Virus"
	AE	Jon A. Norman et al., Vaccine, Vol. 15, 1997, "Development of Improved Vectors for DNA-Based Immunization and other Gene Therapy Applications"
	AF	K. M. Ruitenberget al., Vaccine, Vol. 17, 1999, pages 237-244, "DNA-Mediated Immunization with Glycoprotein D of Equine Herpesvirus 1 (EHV-1) in a Murine Model of EHV-1 Respiratory Infection"
	AG	Ann Hwee Lee et al., Vaccine, Vol. 17, 1999, pages 473-479, "DNA Inoculations with HIV-1 Recombinant Genomes that Express Cytokine Genes Enhance HIV-1 Specific Immune Responses"
	AH	Seung Woo Lee et al., Vaccine, Vol. 17, 1999, pages 490-496, "IL-6 Induces Long-term Protective Immunity against a lethal challenge of Influenza Virus"
	AI	Elanchezhian Manickan et al., Critical Reviews in Immunology, 1997, "DNA Vaccines - A Modern Gimmick or a Boon to Vaccinology"
	AJ	P. Jeffrey Lewis et al., Vaccine, Vol. 15, pp. 861-864, 1997, "Polynucleotide Vaccines in Animals: Enhancing and Modulating Responses"
	AK	Nikolaus Osterrieder et al., Virology, 1995, "Protection against EHV-1 Challenge Infection in the Murine Model after Vaccination with Various Formulations of Recombinant Glycoprotein gp 14 (gB)"
	AL	Zhi Quan Xiang et al., Virology, 1995, pp. 569-579, XP-002029171 "Immune Responses to Nucleic Acid Vaccines to Rabies Virus"
	AM	J.M. Furze et al., Virology, 1997, vol. 231, pages 48-58, "Antigenically Distinct G Glycoproteins of BRSV Strains Share a High Degree of Genetic Homogeneity"
	AN	Naik, S. and Shaila, MS. "Characterization of membrane-bound and membrane anchor-less forms of hemagglutinin glycoprotein of Rinderpest virus expressed by baculovirus recombinants" Virus Genes 1997, Vol 14, No 2:95-104. (Abstract)

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.